AF 14-731 February 11, 1959

MEMORANDUM OF CONFERENCE

Between: Dr. Boyd Schaffer ) American Cyanamid Company
Mr. F. Ray Barron ) New York

O. G. Fitzhugh
L. L. Ramsey
F. J. McFarland

Subject: Pesticide Petition 195 - Tolerance for HCN on grain.

In our letter of February 4 we advised the American Cyanamid Company that we could not conclude that the requested tolerance of 75 ppm for HCN on grain would be safe because of the question of safety for animals of feed prepared from grains bearing 75 ppm of HCN. We also indicated that before any higher level could be considered the question of possible reaction products would need to be resolved.

Mr. Barron said that the animal feed made from grains containing 75 ppm of HCN would contain much less residue as they were consumed by farm animals. We pointed out that while this was possible, the establishment of a tolerance of 75 ppm for HCN in grains would mean that 75 ppm of HCN in feed would be safe and that we were unable on the basis of data available to reach this conclusion. Dr. Schaffer referred to the two year rat studies at 300 ppm which he said showed no chronic toxicity at this level. We pointed out that the level of HCN in this feeding study was not 300 ppm but rather some level between 300 and 85 ppm; the later figure representing the HCN level in the feed at the end of 48 hours at which time it was replaced by freshly fumigated feed.

Dr. Fitzhugh said that before any level higher than 25 ppm for HCN in grain could be concluded to be safe from the standpoint of animals consuming feed from such grains, it would be necessary to conduct short term feeding studies on chickens and hogs, and in addition on dogs or some other species of farm animal with appropriate levels of HCN in the feed throughout the study.

The seizure of wheat from the Dannen Grain and Milling Company, Carrollton, Mo. because of high residues of HCN was discussed. The visitors were familiar with the circumstances leading to this seizure and the difficulties encountered in removing the high residues. Aspiration and drying at 130°F. was necessary to reduce residues from 37 ppm to levels within the tolerance. The visitors did not offer an explanation for the persistence of residues of HCN in this instance.

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Mr. Ramsey explained that there was some question that the method employed recovered all the cyanide. The possibility of reaction products from cyanide fumigation we suggested could be solved by recovery experiments using carbon 14. After application of the analytical procedure the sample could be tested for radioactivity. We said that the existing tolerances for residues of HCN were based on the understanding that HCN residues would be almost completely eliminated when grain was manufactured into human food. Residue data presented heretofore showed that HCN in flour, bread, cereals from fumigated grain did not exceed one or two ppm. We explained that we were concerned over the possible presence of reaction products over and above the 1 or 2 ppm.

In conclusion, we said that because of the above considerations we could not establish the 75 ppm tolerance requested. We explained that the firm could withdraw the petition without prejudice to a future filing and make the suggested studies and resubmit, or that they could request that the petition be referred to an advisory committee. The visitors said that they would let us have their decision by telephone on February 12.

F. J. McFarland

cc DF
cc DP

FJMcFarland:jrs 2-17-59

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